



Recycled Water: The Next Step

Posted by [Pierluigi Oliverio](#) on Monday, January 11, 2010

I am one of the members who sits on the South Bay Recycled Water Committee, representing San Jose. This committee has investigated and is now recommending a partnership with the Santa Clara Valley Water District to move forward with recycled water and jointly build an advanced water treatment plant.

(I blogged on the topic of recycled water and water scarcity in the past.)

Now, after six long public meetings and a visit to the Orange County advanced water treatment facility, we have reached a tentative agreement that will span 40 years. We will be build an advanced water treatment plant on five acres right next to the existing water pollution control plant in San Jose.

The estimated cost will be \$42-\$47 million and the costs will be shared: \$20-25 million will come from the water district, \$11 million from San Jose, \$8.25 million from a federal grant and \$3 million from the state (Prop 50). The City of San Jose's portion will not be coming from the General Fund but rather from money set aside from fees for just this purpose. Unfortunately, this is also the money that some would like to borrow so we can build more affordable housing although we have already built 18,000 affordable units in San Jose.

This plant will produce 10 million gallons per day of membrane-filtrated water, eight million gallons per day of reverse osmosis-treated water and 10 millions gallons per day of ultra violet light-treated water. What does all this mean? Well first, we will be able to demonstrate to regulators and the public that we can take wastewater and turn it into drinking water where we are able to remove particles in the parts per trillion level. This facility will allow for public demonstration of how wastewater is transformed into potable water. People will be able to drink the water after it goes through the many steps of advanced treatment, as they do in Orange County. We will also be able to enhance the recycled water quality for existing

industrial customers who would like less salinity in the water which is good as it creates more demand for non-potable uses.

This plant is the first step for the facility. There is land adjacent to the facility to expand and produce even more clean water. However, the thought is to build the larger facility over time, as we need acceptance of advanced water treatment from residents. I recall when touring the Orange County facility that we were told that their water has traces of jet fuel left over from the defense industry and they were able to remove it to less than three parts per trillion. That's amazing when you think about how the technology can get down to cleaning the water at that level.

It is important to remember that almost all the water you and I drink is recycled as only 3 percent of the water on earth is pure. Interesting thing I learned about San Diego is that 95 percent of their water is imported. By contrast in San Jose 50 percent of our water is imported. Imported water is always a risk since it may not be there in the future; however, if we have advanced water treatment, then we would have less risk about imported water being diminished.

Oftentimes people ask, «Why not just desalinate the water from the ocean and make that drinking water.» The cost to desalinate ocean water is very expensive. In addition it takes a lot of energy to clean water. The following is how many KWH per hour for one acre foot of water (a year supply of water for two small families):

1,500 KWH for Advanced Water Treatment

3,500 KWH for importing the water from the Delta

4,000 KWH for desalinization

Our water supply is at risk since there is a finite supply. Are you willing to pay a little more for reliable and clean water?

This will be voted on by the water district board in January and city council in February.

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